



Outsourcing as a contracting model in the public sanitary field and analysis of the sanitary transport field's environment

DEGREE IN BUSINESS ADMINISTRATION

DEGREE FINAL PROJECT (DFP)

CARLA RIBES GUARDIOLA (20903207W)

Tutor: CARLA MARIA MARTÍNEZ MARTÍNEZ

Academic year: 2014-2015

Index

0.Executive Summary	3
1.Introduction to Outsourcing.....	4
1.1. What's Outsourcing?	4
1.2. Outsourcing in the Spanish Sanitary field	6
1.3. Intended Costs For Outsourcing in the Sanitary field	8
1.4. An International Comparative Analysis	12
 2. Analysis of the environment on a concessionaire dedicated to Sanitary services	 15
2.1. Company's description (and its services)	15
2.2. Methodological description uses for the analysis.	17
2.3. Analysis of the General Environment (PESTEL)	18
2.4. Analysis of the Competitive Environment (Porter)	24
2.5. Justification of the company's strategy, SWOT Analysis: Company AMBULANCIAS CSA S.L.....	31
 3. Conclusions	 36
 4. References	 40

0. Executive Summary

The following project is going to describe the investigation of the Outsourcing concept as a contracting model in the sanitary field, and the analysis of the general and competitive environment with the example of the company AMBULANCES CSA SL. This is a concessionaire dedicated to outsourced sanitary services and sanitary transport for the Department of Health and private customers.

This project is divided within 3 parts: In the first one, we analyse the concept of Outsourcing, the way that the Spanish sanitary management works and how the sanitary cost is divided in this kind of contracting. After this, we will see how the sanitary services work in different countries, as a comparison.

In the second part of the project, we will focus on the analysis of the general and competitive environment of a concessionaire company dedicated to outsourced sanitary services (Ambulances CSA SL). We will use the PESTEL'S analysis and the five forces of PORTER.

Once we have analysed the environment, we will investigate the organization by using the DAFO analysis, so we can determine which strategy should follow our company to obtain benefits in this sector.

Finally, we will analyse the conclusions that we obtain from this project.

1. Introduction to Outsourcing

1.1 What's Outsourcing?

The concept "outside sourcing" comes from the translation of the neologism "outsourcing".

It's possible to define the outsourcing as the competitive process whereby companies or organizations delegate to third parties providing certain services. This is not a new phenomenon. In the 70's, the companies began to transfer to third parties that were not part of their own activity, such as cleaning, maintenance, security...

The main reason why companies outsource their services is purely strategic, as I mentioned in the previous paragraph, the outsourcing involves a company that opts for a third party to delegate a service instead of carrying it out internally, that is, with their own resources. In the past, companies tried to make internally most of their activity to be self-sufficient and not to have to rely on other organizations. And it worked. But in the current competitive environment, this strategy is not effective. Due to globalization, companies have to struggle to be competitive and to adapt themselves to the continuous changes that occur in the environment (technological changes, changes in the organizational structures, "flexible organization", R & D, etc.)

For this reason, outsourcing offers some advantages:

- **Costs reduction:** This is the main reason why a company delegates a service to a third party. Outsourcing converts fixed costs into variable costs, freeing capital to invest in other parts of the business and allowing to avoid costs in the early stages of business.
- **Increasing of operational efficiency and flexibility :** Companies that opt for outsourcing achieve greater efficiency and flexibility, because this process allows them to concentrate their efforts on its core activity.
- **Access to not available profiles / knowledge / technology:**
- **The outsourced company is specialized in the service it provides and for this reason it has greater access to knowledge and innovation in the sector.**

- To reduce response time to changes in the environment: outsourced companies adapt better to changes that occur in the environment and also in the technologies to devote mainly into the business.
- To improve the quality of the service.
- Confort.

To explain better these advantages of the proccess, I will put an example applied to the sanitary section, according to Eduardo Valdelomar (2013) in his article "The outsourcing and its application to Public Health"

Suppose that a hospital has internalized the maintenance of its electrical equipment, and for that purpose they count with technical specialists. These technicians have holidays, breaks, diseases, etc. So it's normal that the staff is slightly oversized to cover these eventualities. The hospital will have an automated system of maintenance management, a store of staples and commercial agreements with the suppliers of spare and consumable products, who will be the equipment manufactures mostly.

When the technicians skills are not enough to attend a reparation or they need expensive tools that the hospital doesn't have, it will be necessary help from third parties or from the manufacturer, always at a high cost. At the same time, the addition of new equipment or new brands requires more information and training for the hospital technicians, which normally needs the manufacturer collaboration.

If the hospital outsources this service to a creditworthy borrower, it will be able to make a dimensioning staffing much tighter (as it will have internal flexibility to meet any eventuality).

Their knowledge base is not limited to the outstanding qualifications of the hospital staff, but will be extended to all employees, that's the reason why their technicians will have the opportunity to ask internally questions before resorting to manufacturer, and also the hospital may allocate experts or tools to complex repairs where necessary. It would be able to reduce the stock of spare parts of the hospital because it will have its own central warehouse, from where it would be possible to attend the needs of all its customers. Also, it will have advantageous trade agreements when moving larger volumes. It will have a powerful and implanted computer system, which not only streamlines the management but aslo allows the hospital to check the information, evaluate performance, look for best practices ... With the addition of new equipment, the borrower can directly train their technicians or even make movements on the

staffing to fit them to the new electro park. All these advantages are translated into direct savings, allowing the borrower to win margin while reducing hospital costs.

Despite the fact that outsourcing's got many advantages, it also has risks:

- Outsourcing a service involves a loss of control over it.
- Resistance to change by employees of the delegated service.
- Cost of the company's contracting about the decentralized service.

1.2 Outsourcing in the Spanish sanitary field

There are two ways of managing public health. On the one hand, we have a direct management carried out by the government and public bodies. In this one, the private sector is not included.

On the other hand, we have the indirect management, where a private company is hired to provide a service. In this case, the private company will take out the service always under the responsibility of the Administration.

To carry out this kind of management it's necessary to hire also public services. There are no specific ways of indirect management in the health section, but provided manners in general are used (except some specialities).

1.2.1 Types of indirect management used for the healing.

Within the indirect management we have different types, the most used by the health administration are:

- **Economic Agreement** – Is a type of contract to provide indirect services to the Administration. It's regulated by art.181 of the Royal Decree 1098/2001 of October 12, which states: The form of Economic Agreement will be used in those cases when, for an increase efficiency, it's necessary for the Administration to hire a private service from individuals that have similar content to the respective service. Source: Official State Bulletin, General Regulations of the Public Contracts Law. <http://www.boe.es/buscar/act.php?id=BOE-A-2001-19995>.

In our country, the way to establish the Economic Agreements depends on each region and type of service, but the main models are:

1. Open Bidding: In this process of consultation, the public sector entity gives the opportunity to all the companies that want to take over the service, to assist in the process.
 2. The negotiated procedure with advertisement: The public sector entity makes a contract advertisement. All the companies can be part of the process submitting the necessary documentation. The contracting authorities consult the economic operators of their choice and negotiate the terms of contract with one or more of these.
 3. Negotiated procedure without advertisement: Unlike the previous procedure, the Negotiated procedure may also be applied without prior advertisement. In this case, this procedure doesn't offer a contract advertisement as in the Negotiated procedure (with advertisement), but the Contracting Authority directly invites at least three Economic Operators instead of publishing a Contract Notice, and after that, they choose that one with better conditions.
 4. Special procedure for exclusivity: In this procedure, an exclusive agreement with only one company is established, normally because it's got special qualities.
- **Concession Agreement**: It's a kind of management contract regulated mainly by the Public Administration Contract Law . It's a contract between the Administration and a company or individual, in which it is granted the right to develop public functions, but the private company will be the one that assumes the financial risks arising from its own management, although administration , as holder of the delegated functions, it has power to ensure that management is being conducted appropriately.

Although the dealer is responsible for managing and operating the service , the risk is not only to him. The risk is shared with the Administration, because in case of unforeseeable risks and repricing, it is forced to provide a guarantee to maintain the economic balance of the contract:

-Compensation for unpredictable risks: When there's a break of the economical equilibrium of the contract for reasons that cannot be blamed to the administration either the entrepreneur.

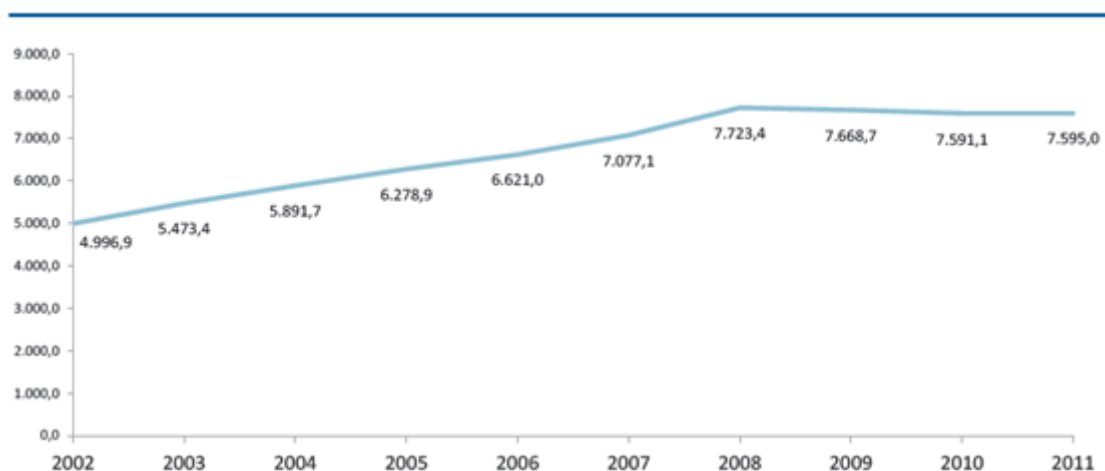
-Price Review: Only cases reflected on the contract.

- **Interested management:** contractual arrangement in which both the public administration and the entrepreneur cooperate with the results obtained by operating the service (proportion is reflected on the contract). Thus, the economic risk lies to the two parties.
- **Management through mixed economical society:** Management through this kind of society is contemplated in the PSCA. This kind of management is performed by creating a corporation with the participation of the administration in concurrence with natural or legal persons or in participation of a corporation already created. The mixed nature of this society results from the social participation and from the leadership and management of the company in which the administration must participate.

1.3 Intended Costs For Outsourcing in the Sanitary Field.

Health costs in public-private contracting has progressively increased between the years 2002 and 2011. According to the Ministry of Health, Social Services and Equality, in the last years 7,600 million Euros were approximately intended for this type of trading. This expense is the one that goes to the types of contracts described above (economical agreements, convention and concessions), which shows the role that the sanitary private sector plays as a strategic ally of the public system.

Graph 1: Amount of public – private contracting costs, national total (millions Euros), 2002-2011

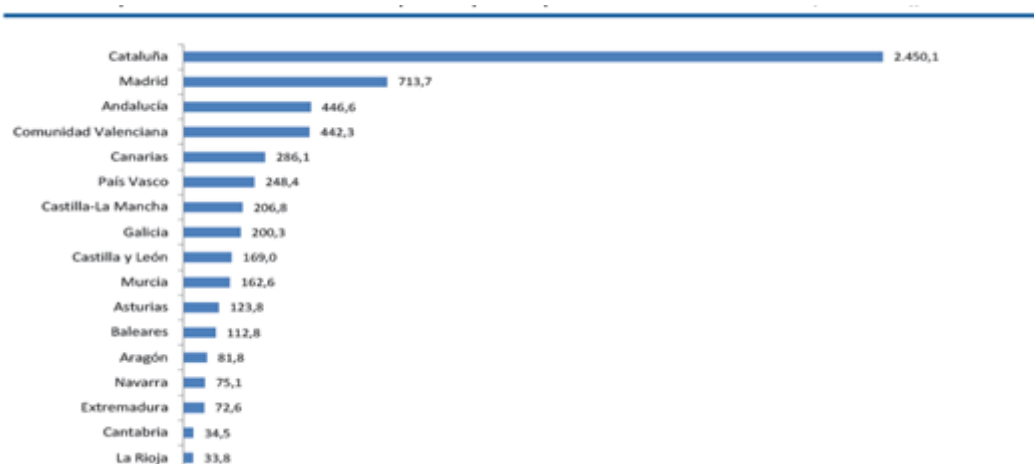


Source: Ministerio de Sanidad, servicios sociales e igualdad. Cuenta Satélite del Gasto Público: Serie 2002-2011.

As we can see on the graph, the costs' increase has been constant from 2002 until 2008. In this period the increase is 2.7265 billion euros. Since 2008, due to the economic crisis and its budgetary constraints, we can see a decline until 2010, from which we can see a small increase, although the numbers remain similar than the last two years.

1.3.1 Amount of public – private contracting costs between regions

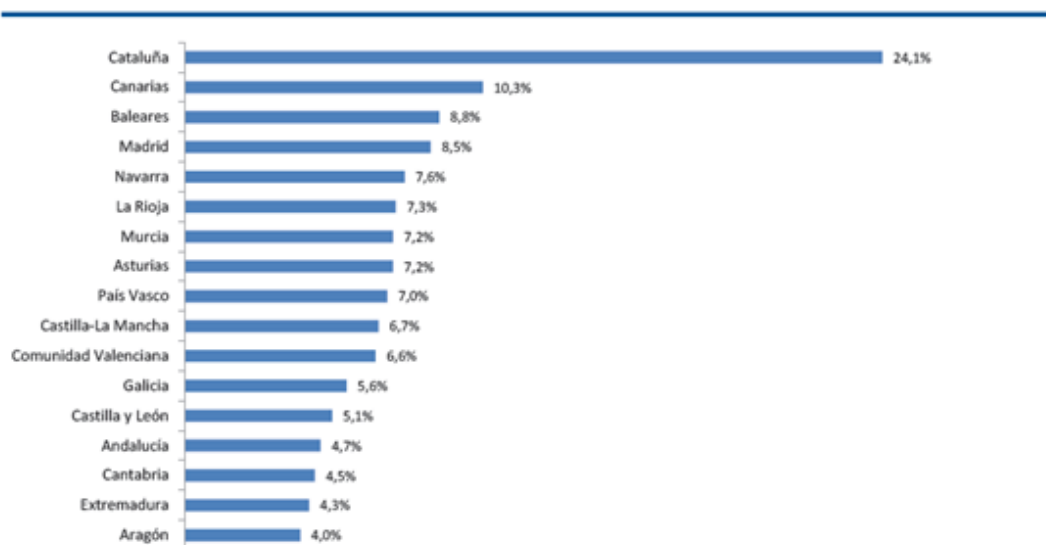
Graph 2: Amount of public – private contracting costs between regions (millions Euros), 2011.



Source: Ministerio de Sanidad, servicios sociales e igualdad. Cuenta Satélite del Gasto Público: Serie 2002-2011.

Graph 2 shows the amount intended for public-private contracts by autonomous communities in 2011. Catalonia is on the top of the list because it has an expenditure of 2.4501 billion euros (this is a quarter of its budget for the sanitary field). After that, we have Madrid and Andalusia with 713.7 and 446.6 million respectively. In the fourth place we find Valencia with an amount of 442.3 million euros.

Graph 3: percentage of private and public contracting expenditure by autonomous communities, 2011



Source: Ministerio de Sanidad, servicios sociales e igualdad. Cuenta Satélite del Gasto Público: Serie 2002-2011.

Graph 3 shows the percentage of private and public contracting expenditure by autonomous communities in 2011.

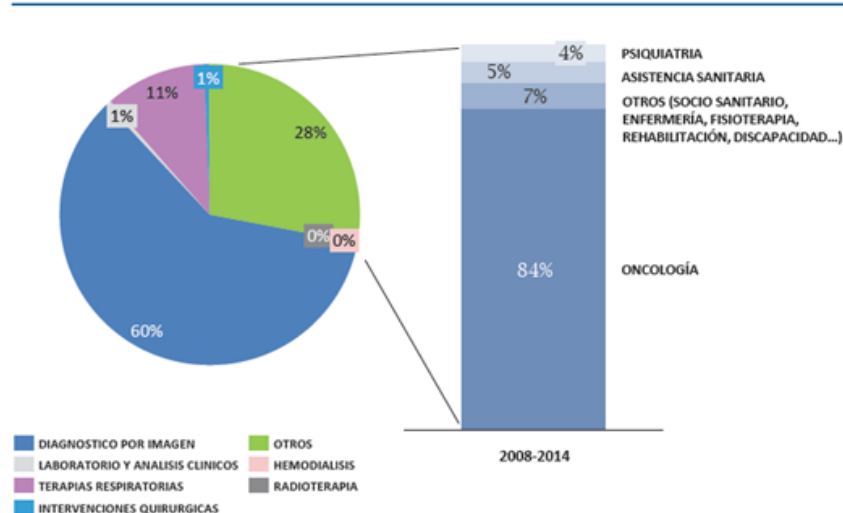
We can see that after Catalonia with 24.1 %, Canary and Balearic Islands are the regions with the highest relative expenditure on this concept, 10.3% and 8.8 % respectively. The city of Valencia is in the eleventh place with 6.6 %.

1.3.2 Amount of expenditure on public-private contracting in Valencia.

As seen in graphs 2 and 3, Valencia is in the fourth place in the ranking of regions with the highest expenditure on public-private contracting. In 2011 the expenditure on this concept was 442 million euros. This represents 6.6% of sanitary expenditure. The growth in the period between 2002 and 2011 corresponds to an average annual growth rate of 10.9%. In this community, the main ways used for hiring are the economic agreements and concessions. About the economic agreements, between 2008 and 2014, 159 contests for the sanitary public service of Valencia were performed. Most of them were related to the diagnostic imaging services management, and after it, respiratory therapy.

Graph 4 shows the distribution of the award procedures on the sanitary field contests. As we can see, 60% is intended to diagnostic imaging, 11% to respiratory therapies. 28% to other services such as oncology with 84%, followed by other services such as nursing, rehabilitation, disability, medical transport ... which gives a final amount of 7%. Finally, we have psychiatric services and health care that have 4% and 5% respectively.

Graph 4: Distribution of the award procedures on the sanitary field contests



Source: Maninvest 2014.

As for concessions, Valencia was the first one in hiring the overall management of the public health service with the administrative concessions. The main data of concessions are shown in the following graph:

Graph 5: Hospitals with administrative concessions

Hospital	Año apertura	Concesionario	Población asignada	Nº camas	Prima per Cápita 2010 (revisada)	Fórmula de actualización cápita
Hospital de La Ribera (Alzira)	1999	Adeslas 51%; Ribera Salud 45%; ACS 2%; Lubasa 2%	277.000	102	632	Actualización en el mismo porcentaje que lo haga el presupuesto público de salud.
Hospital de Denia	2008	DKV 65%; Ribera Salud 35%	150.000	250	632	
Hospital de Torrevieja	2006	Ribera Salud 50%; Asisa 35%; Centro Médico Salus Baleares 10%; Cívica 5%	155.000	260	632	
Hospital de Manises	2009	Sanitas 100%	195.000	150	632	
Hospital del Vinalopó (Elche)	2010	Ribera Salud 60%; Asisa 40%	160.000	273	632	

Source: DBK 2012 and analysis PwD.

Hospitals that are under the administrative concession model are: Hospital la Riviera, hospital Denia, Torrevieja's hospital, Manises' hospital and Vinalopós' Hospital.

In these cases, the Concessionaire has the right to receive the relevant fees for managing the public health service during the term of the contract, consisting on the following amounts:

Premium per capita (person / year) referred to provision of public health care to the protected population. The premium per capita is calculated by the following rules:

One part obtained by multiplying the premium per person offered by the number of people within the protected population.

Another part is the positive or negative balance of the inter-center billing. For example: The processes performed by the services of the Hospital for patients who are not included in the coverage will be billed to the administration. On the other hand, the processes performed by other centers that depend on the local government health's department will be reduced from the annual price.

1.4 An International Comparative Analysis

1.4.1 Sanitary system management USA.

The USA do not have a completely public sanitary system. It's the only developed country without an universal sanitary coverage. For that reason, 15% of the USA population has no sanitary protection.

Furthermore, entrepreneurs are not forced to assist their employees with this kind of sanitary protection, but the big companies use to offer this coverage through a collective bargaining. Normally, the workers with low wages, are those ones without enough sanitary protection.

The current public health system in this country covers pensioners over 65, people without resources and children from families with limited resources. And all of this thanks to the programs I'm going to describe right now:

MEDICARE program: This is a federal program that provides health coverage if you're over 65 or if you have a severe disability. It doesn't matter the income and patients

must pay part of the costs. Medicare is an insurance program, that you must be registered in and you must have paid contributions to receive assistance when needed..

From the beginning, this program is supported by private companies that are responsible for acting as intermediary between medical providers and the government. Medicare consists on 4 parts:

- Part A, Hospital Insurance: This part of the program covers a maximum of 100 days. The first 20 days are covered by Medicare and the remaining 80 require a copayment. From 100 days copayments increase.
- Part B, Medical Insurance: It covers outpatient care. Drug administration is covered only if administered by a doctor during a consultation. Anyway, there are plans since 2006 to fund certain drugs.
- Part C, Medicare Advantage Plans: Greater and more expensive delivery fees.
- Part D covers prescription drugs: With fees.

Medicaid program: It is a state and federal program that provides health coverage if you have low income. It is a welfare program. It does not have defined structure as the program above. The reason is that, despite the fact that the federal administration finances it and puts general rules, as it is a joint federal and state program, states have a lot of freedom to set their own standards and health insurances.

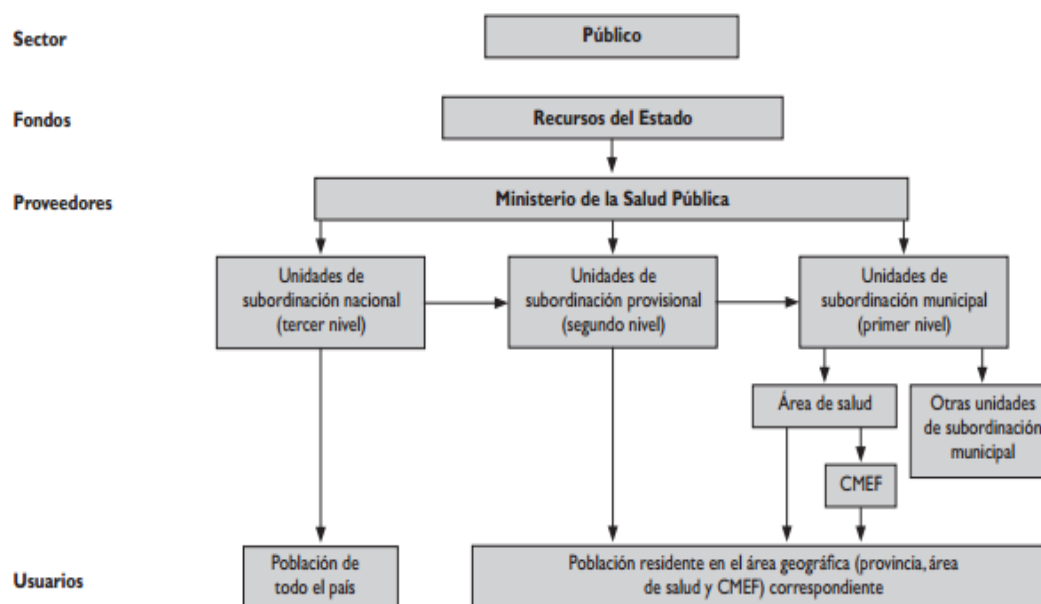
1.4.2 Cuban health system management

Unlike the American healthcare system, Cuba has an universal national health care system that provides coverage to the entire population, regardless the income level or if people belongs to a public or private insurance company.

In this country, it is the state that finances, regulates and provides health services. The body responsible of governing the health system in this country is the Ministry of Health (Public Health Ministry) responsible also of implementing government and state policies and of encouraging the development of medicine and the medical-pharmaceutical industry.

The structure of the Cuban national health care system is:

Graph 6: Structure of the Cuban national health care system



CMEF: Consultorio del médico y la enfermera de la familia

Source: Dominguez Alonso, E and Zacca, E., (2011) “*The health system of Cuba*”.

As we can see in the graph, the Cuban National Health System is a public one that is financed from state funds. The Public Health Ministry, as stated above, is the body that directs all the system and is responsible of providing the necessary resources to its three levels of service:

1. Municipal subordinated units: is the one that have to solve 80% (approx) of the health problems of the population. These services are provided in the areas of health and medical centers, clinics, doctors...
2. Municipal subordinated units: This secondary level solves 15% of health problems and is responsible of treating sick patients to prevent complications and try to speed up the recovery as soon as possible.
3. National subordinated unit: It is responsible of supporting those health problems that require services of specialized hospitals and institutes of national

subordination. It's about patients with complications and consequences of certain diseases.

2. Analysis of the environment in a concessionaire of outsourced health services

2.1 Company Description

Ambulances CSA SL is a company dedicated to medical transport services. This company provides various services such as:

Urgent services: This Company provides the Ministry of Health with ambulances and medical staff to provide services in SAMU (**Emergency medical services**) and BLS (Basic Life Support). Coordination between emergency services is made through the CICU (**Intensive care medicine**).

Non-urgent services: Within this type we can find scheduled services, such as rehabilitation, chemotherapy, dialysis, consultations... etc. They all are public and private, and also coordinated by the CSA's central.

Prevention: other services offered by this company are preventive such as sporting events, social and cultural events, bullfights, etc.

For this services not only transport services is press, but also Healthcare, as they have a wide number of doctors and nurses who are subcontracted for these services in addition to its team of medical technicians.

Sanitary flights: Nationals and Internationals.

To carry out all these services they have the following fleet:

- 18 Mobile ICU / SAMU.
- 2 VIR (Rapid Intervention Vehicle).
- 40 TNA (Unassisted Transport).
- 1 AMV (Multiple Victims Accident)
- 9 ICU (Intensive Care Unit)
- 5 SVB (Private)

This company is located in “La ciudad del transporte” in Castellon de la Plana and it has a staff of over 225 professionals distributed around the following areas:

- Management.
- Administration.
- Logistics.
- Movement staff (doctors, nurses ...)
- Maintenance.

The organization chart is composed as:



2.2 Description of the methodology used for analysis

Before beginning to analyze the environment, I will explain the concept and methodology I will use to make the analysis.

The success or failure of a company depends not only on internal resources, but also on external elements that cannot be controlled and have a big influence on the company. These external factors over which the company cannot decide are those that create the environment.

Two important aspects of the definition of environment:

- The company does not control the environmental factors because they are external and not internal. A company may try to choose a favorable environment but cannot control it.
- The environment is formed by those factors that indexed or can influence the results. We will call strategic factors that ones that have or can have in the future a significant impact on business results. If the incidence is positive for the company, this factor represents an opportunity; if it's negative, it represents a threat.

Once I defined the concept of environment, I will make an analysis of the environment of the sanitary transport services sector. To make an analysis of the environment, there are a few things that must be taken into account. First of all, there are two types of environment: one generic, which is common to all the companies that belong to the same social, economic, political and technology sector, and the other one competitive or specific, which is different for every company.

To analyse the general environment (macro environment) of the Health Transport Sector in Spain, I will use the PESTEL'S method. This analysis reflects the political, social, economical, technological, environmental and legal factors that influence the sector and it allows us to know the situation of the environment and its potential.

To analyze the competitive environment (microenvironment) of the main company (Ambulances CSA SL) I will used the Porter's five forces analysis.

We will also analyze the presence of potential competitors, customers, suppliers, substitutes and competitors in this business, which will help us to determine the structure, the attractiveness of this sector and what are the most favorable environment and strategy.

2.3 Analysis of the general environment PESTEL

Political-legal factors

Among the political-legal factors we can find the regulation and management of medical transport by road:

The medical transport is subject to an extensive regulation. There are two authorities of the State Administration that regulate the sector: the Ministry of Development and the Ministry of Health.

Current legislation:

Transport

Law 16/1987 of 30 July, on Land Transport, regulated in the 3rd section of Chapter II with Title IV: the medical transport. It is set the legal status of the enabling authorization to exercise the activity of medical transport; it specifies the characteristics and requirements applicable to requests of affected vehicles to the activity, visa authorizations and replacement of vehicles in accordance with the provisions of Articles 42, 45 and 46 of the regulation.

- Royal Decree 1211/1990. September 28, which develops the rules of the previous law.
- Order of 3rd of September, 1998, which develops the regulation 1211/1990 concerning medical transports by road.

Royal Decree 619/1998 of 17th April which regulates the technical characteristics, health equipment and the staff of medical transports by road.

RESOLUTION of September 19th, 1995, by the general direction of transportation by road, that completes visa transport authorizations and auxiliary and complementary transport activities.

RESOLUTION of February 9th, 1996, by the General Directorate of Land Transport, that formulates coordination rules in the processing of trucking authorization, auxiliary and complementary transport activities.

Health

The medical transport is considered from both state and regional health regulations, as just another health service. It is regulated by:

- Law 14/1986 of 25th April, General for Health.
- Law 16/2003 of 28th May, by Cohesion and Quality of the National Health System. *f* Royal Decree 63/1995, dated January 20th, by the Management of Health Benefits of the National Health System.

Labor

Resolution of the Directorate General of Labour September 21st, 2001, by which it's approved the inscription in the registration and publication of the collective agreement provides workers and Transport Companies for sick and injured people by ambulance.

Traffic

Royal Decree 772/1997; May 30th, 1997. Regulations on Drivers. Amended by RD 62/2006.

On the other hand, when companies involved in developing these services provide help also to the public administration, they should make a contract which is regulated by the Royal Legislative Decree 3/2011 of 14th November, by which the revised text of the Public Sector Contracts Law is approved.

Hiring private transport services by the Ministry of Health is done by the contractual economic agreement, so companies must also comply with the specific administrative clauses in order to participate in the competition. The specifications are determined by each community.

- Elements of the contract (legal regime, contracting, contractor profile, duration, -extension, etc. ...)
- Tendering and warning of the contract. (Procedure, submission of proposals ...)
- Execution of the contract.
- Management prerogatives, jurisdiction and resources.

Finally, I will mention that the current political situation in Spain has been very influenced by the presence of bipartisanship, although it seems that now the situation is changing, since 1982 the two political parties that are sharing the power are the PP

and the PSOE. One of them is always occupying the government and the other one is the main opposition.

Therefore, reforms in health, education, economy ... are constantly changing depending on the ruling party. This situation complicates the adaptation of enterprises to changes. In the case of companies that offer medical transport, a change in the government may affect the outsourcing of the service they offer to the Ministry of Health, because usually the most liberal parties opt for the expansion of outsourcing in all fields including the sanitary sector. On the other hand, Socialist parties prefer a direct and public management of health that would harm these companies.

Economic factors:

The main direct costs for companies engaged to medical transport sector are: Oil, personnel costs, vehicle maintenance, vehicle insurance, allowances and repairs.

Diesel price

The main costs of these companies and the one that more affects the sector due to the economic crisis is the diesel oil. Due to the sharp rise on it, companies engaged to this sector have experienced a large increase in their direct costs.

According to Ministry of Tourism and Trade, the annual average price of oil (in cents per liter) since 2009 until 2014 has increased from 91.20 cents / l, to 130.31cent / l.

Personnel costs

The cost of staff affects not only to the companies that belong to the medical transport sector, but also to several companies dedicated to another service. Since years, companies dedicated to the first sector, are bound by the rule of Royal Decree 938 / 2012 of May 25th, which stipulates the technical characteristics, health equipment and staffing of medical transport vehicles. It also sets that workers must have a professional certificate on medical transport or a first degree in Health Emergency Technician (TES). The Royal Decree also establishes a system of qualification for drivers who are working without this qualification.

Therefore, companies should worry about the fact that their workers must obtain this degree since workers without a license could be a problem in case of changes in

administrative concessions, as one of the requirements for the subrogation is to facilitate the authorization certificates.

This regulation has caused that staff costs have increased as hiring more qualified personnel carries a higher salary.

Ambulances prices

The costs of having an ambulance is high (approx € 50,000). In fact, a company dedicated to the provision of these services must have a large fleet of ambulances and different vehicles (SAMU, UCI, TNA ...) which will require more or less equipment depending on the services they offer.

Furthermore, ambulances use to work for 10 years, and after that time, they can no longer be used as a medical transport vehicle. This situation leads to renew the ambulances to maintain the same number of ambulances than the fleet of the company in question.

Despite this situation, when they medical work has finished, they can be used as vans, so the company can sell them or they can be used in countries that are developing to provide medical services.

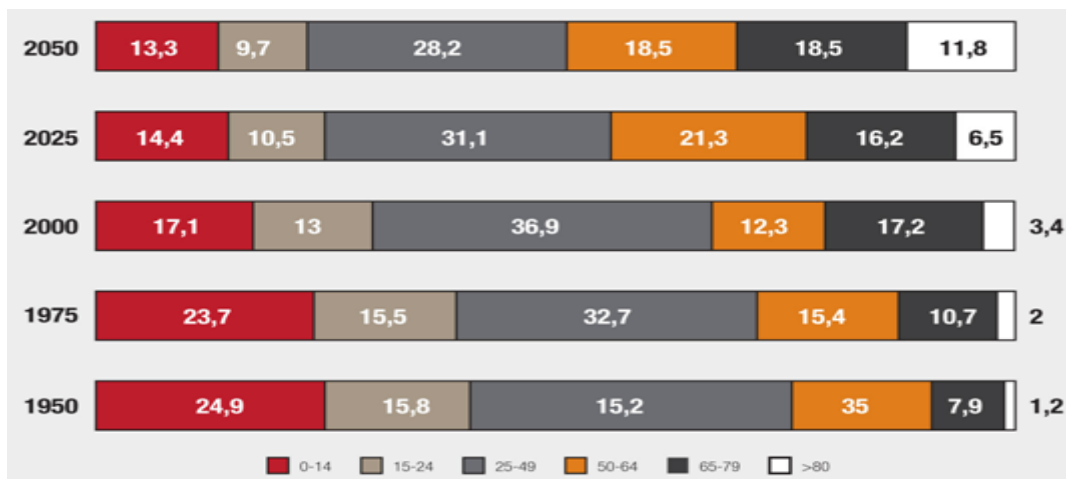
Social Factors:

The increase in life expectancy due to improvements on the quality, advances in medicine and the low birth rate (in some countries), is causing an accelerated growth on the percentage of elderly people, which causes the ageing of the population.

Moreover, in the case of Spain, ageing is particularly accelerated because in less than 30 years, the number of people over 65 years has doubled.

The graph below shows a projection made by Eurostat in 2004 for the 25 EU member countries in the period between 1950-2050.

Graph 7:



Source: ONU: Revision 2002

The graph shows an increase in the population structure that representing the age groups between 65-79 years, and from 80 years old people and beyond. Evolution is clear; in 1950 this group represented no more than 10% of the population. But according to forecasts, by 2050 this rate will represent almost 33%.

This acceleration of aging population affects directly to the sanitary transport sector, as the increase of the population over 65 would cause in the future an increase of the number of services in this sector for the following reasons:

1. Increase of the difficulty for the population for making physical efforts.
2. Although advances in medicine cause that life expectancy of people is higher now, the aging of the population leads to an increase in health problems and consequently a greater need of sanitary transport services.

Finally, it's necessary to add that these changes, in a demographic structure, provoke also an increase on competition for all the enterprises (including the analyzed sector) to attract and retain young employees since an increase of the aging population leads to a decrease of the working population.

Technological:

Technology is a factor that has evolved considerably in the last years. Technological advances in the transport sector in general, and more specifically in the health sector, have helped to improve the speed, safety and quality of the services.

The major advances in technology used by the medical transport sector are:

1. The intelligent transport systems (ITS): It's a variety of technological applications designed to improve service and security of land transport. Although it is used mainly for land transport, it is also used for other ways of transport.

The main reason for the development of ITS is to improve transport efficiency to make it faster, safer and cheaper.

ITS applications used in the medical transport sector are:

Electronic toll collection (ETC): It is a system that facilitates toll payments by technology and it doesn't require a physical transaction.

Vehicles that use this application do not have to queue or stop to make the payment. In the field of medical transport, this application is very important. The emergency transport ambulance service to pay as soon as possible and it's not good to stop and tail for paying tolls, as this can be decisive for the patient's life.

Systems of driving assistance: They are based on sensor technology that analyzes the driving and the vicinity of the vehicle to detect critical situations. In these situations, these systems warn the driver or automatically intervene to prevent accidents.

2. Fleet management of ambulances.

Because of the growing need to improve the management of ambulance companies dedicated to medical transportation, fleet tracking systems are being introduced gradually.

Thanks to Navigation System technology, it is possible to know at any moment the situation of the fleet in real time. This situation provides an efficient fleet management and a better medical transport organization.

Ecological:

Nowadays, the main economic factor that the transport companies have to face is the pollution caused by vehicles, in this case, ambulances.

The medical transport sector is increasingly committed to reduce the impact of their daily operations on the environment.

In July 2013, ANEA (National Federation of ambulance entrepreneurs) and the Biodiversity Foundation (Ministry of Agriculture, Food and Environment), launched a project called "Sustainable medical transportation Green-firm", with the aim of promoting sustainability activities of medical transportation by reducing greenhouse gas emissions. Furthermore, to reduce the energy consumption, there were some strategies of eco-efficiency.

There are also research projects about the use of filters to reduce pollutant particles, such as diesel engines and dual fuel engines, biofuels and alternative fuels such as LPG.

2.4 Analysis of the competitive environment: Porter's five forces model.

1) Threat of new entrants:

With the analysis of this competitive model I will assess the potential of new companies to enter and compete with our company, Ambulances CSA SL. The following factors can have an effect on how much of a threat new entrants may pose: Entry barriers are impediments to companies that wish to compete with ours must pass. The most important barriers that we will analyze are:

- Economies of scale: Ambulance CSA is a company dedicated to medical transportation services. This way, as it has not to produce a product, there are no fixed production costs that can be reduced when its production volume increases. Therefore, we can say that this company does not have economies of scale and this is an attraction for competitors.

- Product differentiation: We can say a service is differentiated when the customers perceive it as unique. This company offers four types of services, including urgent services, non-urgent, preventive and medical services. The main differences in their

service portfolio are the medical flights, as not all ambulance companies offer them. Moreover, to perform this urgent services, it's necessary to have a contract with the local Health Department, therefore we can say that Ambulances CSA SL have some kind of differentiation, and this can be a barrier for new entrants.

Another aspect that I find interesting to mention in terms of differentiation is that this company works with the company EMER -FORMA SL. Our company provides to this second one its departments for health emergency courses, which all the workers of the sector must do. This is very comfortable for its employees, as if they have to renew a course they can do it with the same company and they don't have to move on.

- Existence of legal or administrative barriers: As this is a health service, to enter and compete in this sector it's necessary to know a long list of requirements set by the law.

In the medical transport field, the legislation establishes a legal regime for the activity, the characteristics and requirements that ambulances need to have, and also the technical characteristics, sanitary equipment and staffing of the vehicles.

This field is regulated by the general law of health, as it's considered just another health service. Finally, companies that also want to provide the Ministry of Health have to play some specific administrative clauses.

- Privileged access to customers: Ambulance CSA SL is part of the UTE (Temporary Companies Union) that currently provides the Department of Health for the ambulance services of Valencia.

The potential user in this sector is the Ministry, as it provides most of the services they perform, and it is a safe source of income. While the contract with this customer is operative, the company will have a steady income regardless the number of services performed. If we keep in mind that this kind of contracts can last up to 10 years, new businesses that wish to enter and compete in this sector will not be able to do so for this customer, which provides the greatest billing percentage of these companies.

However, there is no privileged access to private clients as insurers, municipalities or private companies that require these non-urgent or preventive services.

- Necessary investment to enter: The acquisition cost of ambulances is very high. In addition to perform all services, Ambulances CSA SL features a fleet of ambulances with a total of 70 vehicles to meet every kind of health service. These vehicles have also an extense purchase price and require specific maintenance. For this situation, it's necessary that the company is in good conditions and has adequate facilities.

Finally, ambulances must be equipped with all the medical supplies the law sets and must be in perfect conditions. For this reason, I can say that the investment needed to enter and compete with this company is very important and it's not accessible to all the companies that wish to be part of it.

We can highlight five points from the analysis of this competitive force:

1. There are no economies of scale in this business, what can be an attraction.
2. Differentiation in the range of services of the company is not very high, so it is not a difficult-crossing barrier.
3. Extensive legal and administrative barriers that severely difficult the entry.
4. There is a privileged and exclusive access to important customer, who can finally have these companies
5. Very high investment to compete.

Conclusion

Once we have analyzed the barriers to entry in this industry, my point of view is that the possibility of new companies to access and compete with CSA Ambulances SL is very low, because, even though there is a relatively small difference in the services provided by the company and there are no economies of scale, the fact of having the Department of Health as a client in this company provides a very high and competitive advantage. Also, there are a lot of legal and administrative requirements that the sector requires and a large initial investment to enter and compete.

2) Suppliers bargaining power

The analysis of the competitive force aims to assess the possibility that suppliers may mark the "game rules" and affect to the business costs. The Suppliers Bargaining Power depends on the following factors:

Number of suppliers and their concentration: The number of suppliers that the company requires is high. To explain it, I will divide the suppliers in 2 groups:

Group 1: To carry out its activity, the company needs supplies of diesel, bodywork, vehicles, insurances, oil, wheels, spare battery and more. The concentration's grade in this group is high because there are many providers and if one of them decides to raise the price, it would be difficult for the company to seek alternatives.

For example: If the company normally buy their vehicles in Mercedes, but this last one decides to raise the price, the buying company could see a wide variety of suppliers (Renault, Seat etc.), and the same applied to the other workers of this sector. It should be noted that providers responsible of the bodywork, I mean, processing companies of specialized vehicles (organizations that are responsible of performing ambulance vehicles or another one), are fewer in number and are not as concentrated as the other suppliers in this group, so they have a greater bargaining power in this sector.

Group 2: The ambulances need to be equipped with medical supplies. But to explain better this point we have to difference two points:

On the one hand we have medicines, gauze, tubes, gloves and equipment for aids in general. On the other hand, the ambulance must have certain equipment such as automatic respirator, sphygmomanometer, a heart rate monitor, electrocardiogram, semi-automatic defibrillator, etc. For ambulances that operate on the Ministry, the medical supplies they need is provided by the owner hospital, but this machines are provided by the company. However, in the Ambulance CSA services that are dedicated to another customer, it's the own company which offers all the equipment. The number of drug suppliers is high, but in the case of devices it happens the same than in business body: there are many companies dedicated to the realization of that kind of equipment but they are not so concentrated as the other vendors, so they have more bargaining power.

Differentiation grade: Providers do not have a high level of differentiation, so the change should not incur into an increase costs.

The importance of the supplier on the final cost of the service: Not all the suppliers of this company have the same relevance and influence the same way in the final cost of services. Providers who are more important and have a major impact on the costs are gasoil, bodyworks and vehicles (group 1), because they have a higher price.

Conclusion

The bargaining power of suppliers is not very high because the number and degree of concentration of all of them is quite high. There is no differentiation of the products offered by the company and the importance of the supplier on the final cost of the service is not too relevant.

The fact the degree of this competitive force is low means that suppliers may not change in a short period of time the sale's conditions of their products and this is an attractive factor to companies that want to compete.

3) Bargaining power with customers

This force determines the ability of customers to modify the conditions of purchase and affects the company's profits. To determine the customer's degree of influence, we must take into account in particular the number of customer and customer concentration level.

Customer's number and their concentration degree: This Company offers its services to several types of customers:

The main customer is the Ministry. This customer makes the "game rules" in this sector since all the companies involved in medical transportation want to serve to the public administration because it is a source of high income without any risk as long as the contractual relationship is operative. For this reason, the public service sets all the rules and requirements of the contract and ambulance companies have to adapt to the situation if they want to win the competition and deliver services.

Besides the Ministry, the company provides services to insurance companies, municipalities, private companies, etc. These clients do not have a high bargaining power with the company because the level of invoicing is not very high and there are many customers.

Conclusion

The medical transport is very influenced by the bargaining power of customers. The fact that the public administration is the main customer causes that these companies are fully subject to the established rules. The main reason of this great influence is that companies such as Ambulances CSA SL survive in the market thanks to this client, which bills all the services performed.

Although the companies involved in medical transport have more customers and not only the public Administration, the level of benefits that this customers provide is very small in comparison with the first, so regardless that these customers do not have a high bargaining power. I consider that this sector is very influenced by the competitive force.

4) Threat of substitute products

This competitive force evaluates the threat of similar products and service that meet the same needs. In the medical transport there are not substitutes because transporting the patients is a service carried out by specialized medical transport vehicles. Advances in technology can improve efficiency and effectiveness in performing these services, but never replace them. An example in this sector would be the inclusion of tablets in the ambulance to communicate directly with the central station, so the communication is faster and this fact facilitates the coordination of the fleet and improves the service quality.

Conclusion

There are no substitute products in this sector, which is an attractive point to the medical transportation industry.

5) The rivalry between competitors

This is the ultimate force of this analysis. This one evaluates the rivalry among competitors that are already installed into the field. To determine the rivalry between companies that compete with the company we analyzed, I will use an analysis focused on the following factors.

Number of competitors and their concentration: There is a large number of companies dedicated to medical transportation (Approximately 755 companies in Spain) and they are based around the Spanish territory.

Competition in this sector is high because there are many companies and all of them want to provide to the same customer, which is the public Administration. Ambulances CSA SL is part of the UTE and it won last contest, so it has ensured the stability of the company during the time that the contract is operative.

Growth of the sector: The medical transport is a sector that is growing. Some kind of social factors such as population aging and the increase of life expectancy makes that the number of this service is increasing.

As a general rule, when the numbers of services in a sector increases, the rivalry among competitors decreases, because by increasing demand it is easier to improve the company's growth. Instead of this, this sector is different because of the type of client that provides the services.

The Department of Health awarded the management of ambulance by a certain sales figures, and these would be the benefits of the companies regardless the number of services they offer. So, although the fact that the sector is growing, it does not imply that competition between firms in the industry decreases.

Conclusion

There is a very high competition in this sector. The advantage that we can find in our company in contrast with other companies of the same field, is that one company has a contract with the public administration.

2.5 Justification of the company's strategy: SWOT Analysis: company AMBULANCES CSA S.L.

Before we decided with strategy should the company AMBULANCES CSA SL follow, I think it's necessary to analyse this organization. To make this analysis, I will use the SWOT method, which consist on finding the strategic factors of the company and choose that one that more benefits the company (defensive, offensive, redirection or survival)

The SWOT'S analysis has two parts:

Internal analysis: It analyse the forces and weaknesses of the company and try to find what can the company try to do to improve the services in comparison with the competitors.

External analysis: It analyse the chances and the threats of the company. That is, the markets that can be a competitive advantage for our company and the factors that can be a threat for the organization's survival.

The SWOT'S analysis of the company AMBULANCES CSA SL has the following characteristics:

Justification of the company's strategy

2.5.1 Internal analysis

Forces of the company:

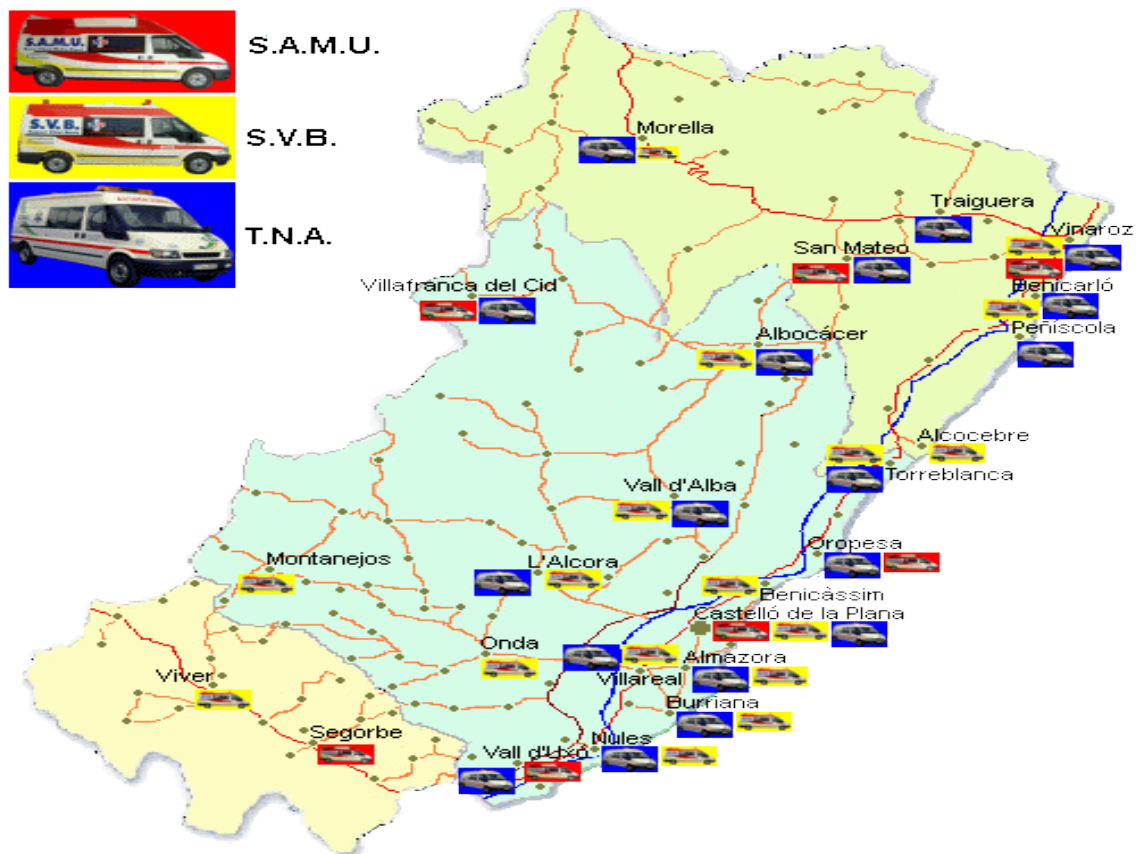
Large fleet of vehicles adapted to new technologies: This Company has a fleet of about 70 vehicles, and ambulances are used up to 10 years, so we can say that the vehicles are in good conditions because when they have 10 years they are renewed.

Furthermore, with the addition of the tablets in vehicles, the communication with the central is faster and the quality is better.

Regional coverage: Ambulance CSA SL serves the entire province of Castellon. The

map shows the areas where the company has its basis and how the services are distributed.

Map 1:



Source: Ambulcsa.com

Professional image: This company has a staff of 225 professionals distributed in the following areas: Management, administration, logistics, coordination, mobile staff and maintenance. This large team of professionals are fully qualified and continuously trained to provide services efficiently.

Adaptation to new trends: Ambulance CSA has incorporated into its vehicles the technology for locating and also data transmission with GPS. Another recent addition has been the unit / trailer destined to mobile medical services. This unit is used in preventive services.

Quality Standards: Ambulances CSA SL has a quality system based on ISO 9001: 2008 and UNE 179002: 2011. The quality policy was adopted in 2005 and delivered to all staff of the company.

Every year the department prepares a review report to ensure that the objectives are being reached. In fact, it has 2 annually audits, the first one, by Optim Assessors (internal) and the second one by the company AENOR (external).

High levels of clients satisfaction: The quality department of the company also deals with complaints from the customers that the company serves to. Anyway, the level of customer satisfaction of the company is high. The percentage of complaints received in 2014 is only 0.001%.

Current contract with the Ministry: Another force of this company is that it currently has a contract with the Department of Health. This is a competitive advantage for the company during a long period of time.

UTE AMBULEVANTE SL Association: The competitions of public administration can be at several levels (regional, autonomous communities ...). The last contest was for the whole Valencian Community. As ambulances companies do not have a very large size, when the Department brings to contest an area too large for being supplied by only one company, ambulance companies form a group in various UTES. This alliance is a big force for the company because if the companies don't do it, they cannot serve the public Administration.

Collaboration with EMER-FORMA: Ambulance CSA provides this company its own facilities for taking courses in health emergencies that workers need to do in this sector. As explained above, it is very convenient for their employees, as they often have to renew or purchase a training course.

Weaknesses of the company:

High subcontracted staff turnover: To carry out preventive services, the company needs to outsource doctors and nurses. For this reason, they have a lot of staff to cover the same labor, but as they are not employees of the company, sometimes it is difficult to cover all the services because of the availability.

Reduced Business size: Ambulance CSA SL is an SME. As this company does not have a large firm size, it may be difficult sometimes to obtain a contract with the Public Administration, because if the contest is made for a large area like the last time, Ambulances CSA is forced to team up with another companies in order to continue having stability in the sector.

It has no maritime medical transportation services: As seen in the description of the services that this company offer, this company provides transport by land and also medical flights, but it doesn't offer maritime medical transportation.

High costs: The acquisition, the maintenance and the equipping of ambulances is translated into a very high cost for the company, so the price of the services performed by the company is also high as it needs to cover benefits for all the costs.

2.5.2 External analysis:

Opportunities:

Diversification into another transports in the sector: As mentioned earlier, the company offers medical transport by road and by plane. An opportunity that could benefit would be to offer maritime medical transportation.

Emergence of new customers: The emergence of private hospitals is an opportunity for the company because it can expand its customer base and not depend only on the public administration.

Increased recruitment for private events: The number of private events such as music festivals, bullfighting events, sports, concerts, etc. has increased in the last years. Furthermore, we have to keep in mind that this company is located in an area where several festivals like FIB, Rototom, Arenal Sound take place. These events attract many people and that's the reason why ambulances are needed to cover the concert and camping areas. We also have to consider that ambulances should cover the previous days before the festival and also a short period of time after the festival, so this type of private events represents an opportunity to increase the company benefits.

Increasing of life expectancy and population aging: These factors represent an opportunity for these companies because the accelerated aging of the population represents an increase of medical transport services.

Procurement notice: This type of contract is very important for the company because if it gets the contract, it will have a fixed level of income and long-term stability in the same field.

Threats: Dependence on political changes: As mentioned in the PESTEL'S analysis, a change in the government can affect to the outsourcing of the service it offer to the Ministry of Health, because usually the most liberal parties opt for the expansion of outsourcing into the health sector and they encourage hiring companies such as Ambulances CSA.

On the other hand, the Socialist parties prefer a direct and public management of health that would harm these businesses.

Risks of the bankruptcy system: hiring for bidding is an advantage for the company. As we saw in the previous section, hiring for bidding is an opportunity because it guarantees the long-term income. But, on the other hand, is a threat because the fact of losing this customer could shake up the company's presence in the sector, because the income amount provided by the Ministry is more than 50% of the income of the own company.

Administrative Barriers: The company must follow some requirements set by the law for the activity of patient's transport. The law marks the characteristics and requirements that ambulances need to have: technical characteristics, sanitary equipment, staffing, vehicles etc. This can be a threat because laws determine too much the realization of this activity.

TES demand: As the company is so conditioned by the law, it has to adapt to all the changes as soon as possible. One of the most recent changes that affects especially the costs of the company is the requirement of the TES tittle (Health Emergency Technician) applied to the driver. The company needs to be sure that the workers obtain this degree. This regulation has caused an increase of staff costs, as hiring more qualified personnel means a higher salary.

Little bargaining power with customers: The main customer of the company is the Ministry. In this sector, the public administration sets all the rules and requirements of the contract and the ambulances companies have to adapt to this rules if they want to win the competition and provide services.

Once we have done the SWOT's analysis and seen the forces and weaknesses of the company, we can say that the strategy it should take to survive in this sector would be a defensive one. Currently, the company has a contract with the public administration, so it has ensured a place in this industry for a long period of time. However, it should not relax and must look for new customers that are profitable and protect them, because if in the future the Ministry is not going to be a customer, the company will have to survive with another customers. To find new customers the company must take benefit of the opportunities that I mentioned in the SWOT's analysis. It should try to branch out into the maritime medical transportation and take advantage of the privatization of hospitals and the rise of hiring medical transport services for private events.

3. Conclusions

1) Conclusions regarding outsourcing.

Outsourcing as a new management model in health:

From 2002 to 2011, the increase in health expenditure in public-private contracting in Spain has been progressive increasing in this period of time up to 2.7365 billion euros. This situation indicates that public administration takes benefit by opting for this kind of management instead of making its own internal decisions; otherwise the costs of this kind of contracting wouldn't rise every year.

The advantages of this type of procurement are cost reduction, convenience, increased efficiency and operational flexibility, among other. For this reason, I think that opting for outsourcing is a good strategy to improve both cost and quality of the service .

I want to clarify that when I talk about outsourcing as a good model of health management, I mean that management of indirect services that are not part of the internal company (transport, cleaning, security) is efficient. I don't mean to delegate completely the management of hospitals to a private company.

Privatization is not outsourcing. Health is an universal right and I think that everyone should have access to it regardless of the income level. But I also consider that delegating services to private companies that are not part of the core business can be beneficial to improve the quality.

In Valencia, the main model of indirect management is carried out through competitions and concessions:

As explained above, there are no specific forms of indirect management for the health sector, we use the general forms.

In the Valencian Community the main models used for outsourcing health services are the concert and the concession

- Contests: Between 2008 and 2014, 159 competitions took place by the public health administration in Valencia.

- Concessions: The Valencian community was the first one in hiring the management of the public health service with administrative concessions. The hospitals under this kind of administrative concessions are: the Riviera Hospital, hospital Denia, Torrevieja's hospital, Manises' hospital and Vinalopo's Hospital.

2) Conclusions about the environment in a concessionaire of outsourced health services.

Once completed the analysis of generic and competitive environment, we can specify two conclusions:

The general environment of the medical transport sector is complex but static: the main indicators of whether an environment is stable or turbulent are three: the complexity, the dynamism and the uncertainty.

About complexity, there are some factors that determine the behavior and the environment evolution. The health transport sector has numerous of legal and administrative barriers to entry and stay in the sector. It is also a sector affected by social factors such as the aging population; by economic factors, etc. It must also adapt to advances in technology, tracking systems and data transmission by GPS, and also ecological factors are gaining importance in this sector.

The uncertainty is also high because the sector is vulnerable to political changes and it also depends on the decisions taken by the public administration.

Finally, the speed of change in this sector is more static, because once the companies have a contract with the Ministry, they have a long period of time to adapt to the changes that occur in the environmental factors, as they have a source of fixed income to ensure their permanence in the sector.

The medical transport environment has some difficult characteristics.

The attractiveness of the industry is not too high

As we can see on the conclusion of the PORTER'S analysis:

1. The possibility of new companies to enter and compete with Ambulances CSA SL is low.
2. The bargaining power of suppliers is not very high, because the amount and concentration of them is very high. There's no differentiation of the products offered by the company and the importance of the supplier on the final cost of the service is not too relevant.
3. The bargaining power of customers is very high.
4. There is no threat of substitute products.
5. The rivalry between the companies already established in the sector is very high.

Although some of the competitive forces of this analysis imply an increase of the attractiveness of the industry such as the low bargaining power of suppliers or the lack of substitute products, in my opinion, the rest of the forces of the analysis have more influence on the attractiveness of this industry.

The Business Strategy that the company Ambulances CSA SL should take is a defensive one.

As I explained at the end of the SWOT's analysis, the strategy that our company should take to survive in this sector must be a defensive strategy. By the moment, the company has a contract with the public administration, so it has ensured survival in this industry for a long period of time. However, it must not relax and must seek new customers that are profitable and protect them, because they will have to survive on these companies if the Ministry is no longer a customer in the future.

4. References

Alonso Cuesta, P. and J.M. Rodríguez Roldan., (2013) “*Gestión y control técnico de servicios externalizados*”. Madrid: Escuela Nacional de Sanidad, Chapter 5.10.

Ambulcsa, (2015). *Transportes Sanitarios de Castellón*. [Online] Available at: <http://www.ambulcsa.com/es>

Anea., (2005) “Apoyo de las Administraciones al transporte sanitario en el tercer encuentro nacional de Urgencia y Transporte Sanitario”, *Federación nacional de empresarios de ambulancias, Anea*. [Online] N°36, pp 34, Madrid. Available in: <http://anea.es/revistas/anea36.pdf>

Cabo Salvador, J., 2015 “*Nuevas formas de Gestión Pública en Sanidad*” [Online] Available in: <http://www.gestion-sanitaria.com/2-nuevas-formas-gestion-publica-sanidad.html>.

Colaboradores de Wikipedia. “*Outsourcing o externalización del marketing*” [online]. Wikipedia, La enciclopedia libre, 2015. Available in: https://es.wikipedia.org/wiki/Outsourcing_o_externalizaci%C3%B3n_del_marketing

Dominguez Alonso, E and Zacca, E., (2011) “*The health system of Cuba*”. Salud Publica Mex; 53 suppl 2: pp 168-176.

Dominguez Martín, M., (2013) *Formas de Gestión Indirecta de los Servicios Sanitarios y “privatización” de la sanidad pública (especial referencia al plan de medidas de la comunidad de Madrid)*. RJUAM, nº 27, pp. 111-142.

E-localiza, (2015). E-Ambulancias, Gestión y control de flotas de ambulancias y del transporte sanitario. [Online] Available at: <http://www.e-localiza.com/index.php/productos/control-de-flotas-y-telemetria/sistema-de-gestion-de-flotas-de-ambulancias-y-transporte-sanitario>

Ediciones Plaza, S. (2015). *Sanidad adjudica a la UTE Ambulevante S.L la gestión de las ambulancias por 235,7 millones*. [online] Valencia Plaza. Available at: <http://www.valenciaplaza.com/ver/117873/sanidad-adjudica-a-ambulevante-s-l-la-gestion-de-las-ambulancias-.html>

Emerforma, (2015). *EMERFORMA Formación en Emergencias Sanitarias* [Online] Available at: <http://www.emerforma.com/>

España. Ley 14/1986, de 25 de abril, General de Sanidad. BOE núm. 102, de 29/04/1986.

España. Ley 16/1987, de 30 de julio, de Ordenación de los Transportes Terrestres. BOE. núm. 182, de 31 de julio de 1987, pp 23451- 23481.

España. Ley 16/2003, de 28 de mayo, de cohesión y calidad del Sistema Nacional de Salud. BOE núm. 128, de 29/05/2003

España. Orden PRE/1435/2013, de 23 de Julio, por la que se desarrolla el Reglamento de la Ley de Ordenación de los transportes Terrestres en materia de transporte sanitario por carretera. BOE NUM.180, 29 de julio de 2013, pp 55210-55224.

España. Real Decreto 662/2012, de 13 de abril, por el que se establece el marco para la implantación de los sistemas inteligentes de transporte (SIT) en el sector del transporte por carretera y para las interfaces con otros modos de transporte. BOE núm. 90, de 14 de abril de 2012.

España. Real Decreto 836/2012, de 25 de mayo, Por el que se establecen las características técnicas, el equipamiento sanitario y la dotación de personal de vehículos de transporte sanitario por carretera. BOE núm. 137, de 8 de junio de 2012, pp 41589 a 41595

España. Real Decreto 1098/2001, de 12 de octubre, por el que se aprueba el Reglamento general de la Ley de Contratos de las Administraciones Públicas. BOE núm. 257, de 26 de octubre de 2001, pp 39252- 39371.

España. Real decreto 1030/2006, de 15 de septiembre, por el que se establece la cartera de servicios comunes del Sistema Nacional de Salud y el procedimiento para su actualización. BOE núm. 222, de 16/09/2006

Federación regional de transportes, comunicaciones y mar de UGT Castilla-La Mancha, (2008) *“Estudio de necesidades de cualificación en el Transporte sanitario en Castilla-La Mancha y desarrollo de itinerarios formativos en 2009-2011. Desarrollo de niveles competenciales integrales”* [Online] nºexp: AC/2008/114, pp13-14. Available at: http://empleoyformacion.iccm.es/fileadmin/user_upload/Otras_Entidades/entidades_sinanimos/Acc._complementarias/2008/200805.pdf

Fernández, J.M. And C. Parapar., (2010). “Envejecimiento: Línea Estratégica General CSIC” at *Fundación general CSIC* [Online] nº2, 2010. Lychnos. Available at: http://www.fgcsic.es/lychnos/es_es/articulos/envejecimiento_poblacion

García, J.M., (2013) *“Externalizar o no externalizar, he ahí la cuestión”* [online] Available in: <http://www.gedesco.es/blog/externalizacion-de-servicios/>

Gaudencio Gutiérrez, A.; Muños Hernández, J.A. and R. Leyva Flores., (2013) “A Comparative Analysis between the Cuban and the American Health Systems”. Vol 9, No.17, pp 19-30

Iborra, M.; Dasí, A.; Dolz, C. and C. Ferrer., (2006) *Fundamentos de Dirección de Empresas. Conceptos y habilidades directivas*. Sixth printing. Madrid, Paraninfo.

Instituto para el desarrollo e integración de la sanidad, IDIS., (2014). “Anexo: La colaboración público-privada en Sanidad”, [Online] Available at: <http://www.isfie.org/documentos/13-03-idis-general.pdf>.

Lexdiario, (2015). *Innovaciones tecnologías y de personal en los vehículos de transporte sanitario por carretera* at “Diario de actualidad jurídica de Lex Nova” [Online] Available at: <http://www.lexdiario.es/noticias/128528/innovaciones-tecnologicas-y-de-personal-en-los-vehiculos-de-transporte-sanitario-por-carretera>

Martín Martín, J.J., (2003) “Nuevas fórmulas de gestión en las organizaciones sanitarias”. Fundación Alternativas. Documento de Trabajo 14. [Online] Available at: <http://www.riberasalud.com/ftp/biblio/15042013144348Alternativas.pdf>

Marín Martínez, M., (2014) *Situación del sector del transporte en España. Análisis y propuesta de mejora de la empresa Transportes Wifredo Martín*. Trabajo final carrera, Licenciatura Administración y Dirección de Empresas, Valencia.

Ministerio de empleo y seguridad social, (2007) *Revista actualidad internacional socio laboral*, nº 99, enero 2007, pp 62-74.

Valdemolar, E., (2013) “La externalización de servicios y su aplicación a la Sanidad Pública” [online] Available in: <http://hayderecho.com/2013/02/03/la-externalizacion-de-servicios-y-su-aplicacion-a-la-sanidad-publica/>

Redempreverde, (2015). *Red empreverde: Red Verde Transporte Sanitario Sostenible* [Online] Available at: <http://www.redempreverde.es/pg/pages/view/46670/red-verde-transporte-sanitario-sostenible>

Zona TES (2013). “Entrada en vigor de la nueva normativa que regula el transporte sanitario. Real Decreto 836/2012 at *Revista de formación para Técnicos en Emergencias Sanitarias* [Online] Nº1. 2013. Available at: <http://media.zonates.com/02-01/PDF/2-Entrada-en-vigor-de-la-nueva-normativa.pdf>